

VERSATILE MOLD FLOW CAPABILITY IN THE INFILTRATION
OF POROUS CARBON PREFORMS WITH
PITCH/THERMOPLASTIC/THERMOSET RESINS

ABSTRACT OF THE DISCLOSURE

5 A rapid resin or pitch transfer molding apparatus, and a method of using
it. The apparatus of this invention comprises: means for melting and
conveying a resin or pitch; a mold (3) arranged so that melted resin or
pitch is conveyed from the melting and conveying means into an annular
mold cavity (1, 35) within an insert (2) in the molding apparatus, wherein
10 said insert comprises means (6, 7, 8, 9, 86) for effecting flow of the resin
or pitch from the top (87) and bottom (85) of the mold cavity (1, 35) to
vents (22, 25, 81) located in the center of, at the top and/or bottom of,
and/or annularly around the mold cavity (1, 35); and means disposed at
the mold to constrain the mold during supply of the resin or pitch into the
15 mold.